

DOCKET NO. D-93-72 CP-2

DELAWARE RIVER BASIN COMMISSION

**Town of Smyrna
Ground Water Withdrawal
Town of Smyrna, Kent County, Delaware**

PROCEEDINGS

This docket is issued in response to an Application referred to the Delaware River Basin Commission (DRBC or Commission) pursuant to an Administrative Agreement under Sections 2-3.4 (a) and 2-3.7 of the *Administrative Manual - Part II, Rules of Practice and Procedure* by the Delaware Department of Natural Resources and Environmental Control (DNREC) on April 28, 2006, for renewal of an allocation of ground water and review of a ground water withdrawal project approved by the DRBC on May 25, 1994 (Application). The project was approved by the DNREC on April 18, 2006 (Permit No. 87-0010-RM3), subject to approval by the DRBC.

The Application was reviewed for inclusion of the project in the Comprehensive Plan and approval under Section 3.8 of the *Delaware River Basin Compact*. The Kent County Planning and Zoning Commission has been notified of pending action on this docket. A public hearing on this project was held by the DRBC on September 27, 2006.

A. DESCRIPTION

1. **Purpose.** The purpose of this project is to supply up to 34 million gallons per thirty days (mg/30 days) of water to the docket holder's public supply distribution system through two existing wells (Wells Nos. 1 and 2A) and new Well No. 3. The proposed allocation of 34 mg/30 days is a slight increase from the existing allocation of 33.99 mg/30 days.
2. **Location.** The project wells are located in the Smyrna River Watershed, in the Columbia/Cheswold Formations.

Specific location information has been withheld for security reasons.

3. **Area Served.** The docket holder supplies water to the Town of Smyrna and portions of the greater Smyrna area, as outlined on a map entitled "Water Service Territory" submitted with the application. For the purpose of defining Area Served, the Application is incorporated herein by reference consistent with conditions contained in the Decisions section of this docket.

4. **Physical features.**

a. **Design criteria.** The docket holder operates two existing wells (Wells Nos. 1 and 2A) with an existing average and maximum water demand of 30 mg/30 days and 34 mg/30 days, respectively. A ten-year future projection provided by the docket holder indicates an increase in the average and maximum water demand to 35 mg/30 days and 40 mg/30 days, respectively. The increase in water demand is to serve the expansion of an industrial facility located within the docket holder's service area, as well as the construction of current and future residential developments. However, the docket holder has failed to address several issues relating to its existing and future demand projections as presented by the DNREC, including an examination and analysis of its unaccounted-for-water loss, classification of per capita water usage including water users by category (i.e.: industrial customers, commercial customers, residential customers), as well as revised leak detection and water conservation programs. Upon a response to these topics, the docket holder may reapply to the Commission for an adjustment in water withdrawal (see Condition II.e of the Decision Section).

The docket holder formerly operated Well No. 1A, approved by DRBC Docket No. D-93-72 CP, but has since abandoned that well.

b. **Facilities.** The project wells have the following characteristics:

WELL NO.	DEPTH (FEET)	CASED DEPTH (FEET)/ CASING DIAMETER (INCHES)	PUMP CAPACIT Y (GPM)	YEAR DRILLED	FORMATION
1	98	80 / 16	1000	1948	Columbia/Cheswold
2A	95	62 / 12	1100	1991	Columbia/Cheswold
3 (new)	113	72 / 10	1000	1985	Columbia/Cheswold

All water service connections are metered.

All wells are metered.

Prior to entering the distribution system, the water is treated by aeration, filtration, chlorination, fluoridation, and adjusted for pH.

The project wells are above the 100-year flood elevation.

The water system is not presently interconnected with any other distribution system.

c. **Other.** Wastewater is conveyed to the Kent County Levy Court sewage treatment facility most recently approved by DRBC Docket No. D-77-87 CP on August 11, 1983. The

DNREC issued its most recent NPDES Permit No. DE0020338 on June 1, 2000 for this treatment facility. The treatment facility has adequate capacity to receive wastewater from the proposed project.

d. Cost. The overall cost of new Well No. 3 is estimated to be \$51,600.

e. Relationship to the Comprehensive Plan. The docket holder's existing wells were previously included within the Comprehensive Plan by DRBC Dockets Nos. D-78-96 CP, D-88-19 CP, D-91-81 CP and D-93-72 CP.

B. FINDINGS

The project is designed to conform to the requirements of the *Water Code* and *Water Quality Regulations* of the DRBC.

The DNREC water allocation is valid for a period of 30 years from date of issue, with review every five years.

The DRBC estimates that the project withdrawals, used for the purpose of public water supply, result in a consumptive use of ten percent of the total water use. The DRBC definition of consumptive use is defined in Article 5.5.1.D of the *Administrative Manual – Part III – Basin Regulations – Water Supply Charges*.

The project does not conflict with the Comprehensive Plan and is designed to prevent substantial adverse impact on the water resources related environment, while sustaining the current and future water uses and development of the water resources of the Basin.

The docket holder has added Well No. 3 to the distribution system, as Well No. 1A has been abandoned. New Well No. 3 is located in the same aquifer as the abandoned Well No. 1A. A pumping test was performed on Well No. 3 in April 1985, at an average rate of 1000 gpm. Drawdown in Well No. 3 reached approximately 80 feet. No monitoring wells were monitored during the test. Well No. 3 was previously permitted by the DNREC as an irrigation well, and no reports of interference have been received by the DRBC. There is no adverse impact anticipated with the operation of the new well as an additional source of supply to the Town of Smyrna's distribution system.

Docket No. D-93-72 CP, which approved the withdrawal of up to 33.99 mg/30 days from three wells (Wells Nos. 1, 1A, and 2A), expired on May 25, 2004. On September 10, 2003 the docket holder applied for the approval for a new Well (Well No. 3) and an increase in the withdrawal to 40 mg/30 days. The application was forwarded to the Commission by the DNREC on April 28, 2006. As indicated in paragraph A.4.a of the Description Section of this docket, the docket holder has not submitted justification for the increase. Therefore, this docket only includes the approval to use new Well No. 3 and a slight increase up to a maximum withdrawal

of 34 mg/30 days, which is based on its current usage. The docket holder can refile an application with the Commission for an adjustment in withdrawal in accordance with Condition II.e in the Decision Section of this docket.

C. DECISION

I. Effective on the approval date for Docket No. D-93-72 CP-2 below:

a. The projects described in Docket Nos. D-78-96 CP, D-88-19 CP, D-91-81 CP and D-93-72 CP are removed from the Comprehensive Plan to the extent that they are not included in Docket No. D-93-72 CP-2; and

b. Docket Nos. D-78-96 CP, D-88-19 CP, D-91-81 CP and D-93-72 CP are terminated and replaced by Docket No. D-93-72 CP-2.

c. The project and the appurtenant facilities described in the Section entitled “Physical features” above shall be added to the Comprehensive Plan.

II. The project and appurtenant facilities as described in the Section entitled “Physical features” above are approved pursuant to Section 3.8 of the *Compact*, subject to the following conditions:

a. Docket approval is subject to all conditions, requirements, and limitations imposed by the DNREC in its Public Water Allocation permit, and such conditions, requirements, and limitations are incorporated herein, unless they are less stringent than the Commission’s.

b. The wells and operational records shall be available at all times for inspection by the DRBC.

c. The wells shall be operated at all times to comply with the requirements of the *Water Code* and *Water Quality Regulations* of the DRBC.

d. During any 30-day period, the total withdrawal from the Well Nos. 1, 2A, and 3 shall not exceed 34 million gallons. The total withdrawal from Wells Nos. 1, 2A, and 3 shall not exceed 360 million gallons per year.

e. Within 90 days of the date of approval of this docket, the docket holder shall submit in writing, to both the DNREC and the Commission, a response to the DNREC letter addressed to the Town of Smyrna dated June 16, 2006. The DNREC, in consultation with the Commission, shall determine the adequacy of the submittal. The Executive Director can, for good cause, extend the date of the submission. Upon notification by the Executive Director, the docket holder may reapply for an adjustment in the water withdrawal allocation.

f. The well shall be equipped with a readily accessible capped port and drop pipe so that water levels may be measured under all conditions. Existing wells are to be similarly equipped, where possible, with readily accessible ports and drop pipes as repairs or modifications are made at each existing well.

g. The project withdrawals shall be metered with an automatic continuous recording device that measures to within 5 percent of actual flow. An exception to the 5 percent performance standard, but no greater than 10 percent, may be granted if maintenance of the 5 percent performance is not technically feasible or economically practicable. A record of daily withdrawals shall be maintained, and monthly totals shall be reported to the DNREC annually and shall be available at any time to the Commission if requested by the Executive Director.

h. Each new water service connection shall include a water meter in accordance with the DRBC's Resolution No. 87-7 (Revised).

i. In accordance with DRBC Resolution No. 87-6 (Revised), the docket holder shall continue to implement to the satisfaction of the DNREC, the systematic program to monitor and control leakage within the water supply system. The program shall at a minimum include: periodic surveys to monitor leakage, enumerate unaccounted-for water and determine the current status of system infrastructure; recommendations to monitor and control leakage; and a schedule for the implementation of such recommendations. The docket holder shall proceed expeditiously to correct leakages and unnecessary usage identified by the program.

j. The docket holder shall implement to the satisfaction of the DNREC, the continuous program to encourage water conservation in all types of use within the facilities served by this docket approval. The docket holder will report to the DNREC on the actions taken pursuant to this program and the impact of those actions as requested by the DNREC.

k. No water service connections shall be made to newly constructed premises with plumbing fixtures and fittings that do not comply with water conservation performance standards contained in Resolution No. 88-2 (Revision 2).

l. The docket holder shall continue to implement its Water Conservation Plan as approved by DNREC, and shall report to the DNREC on actions taken pursuant to this program and the impact of those actions as requested by the DNREC.

m. The docket holder shall implement to the satisfaction of the DNREC, a drought or other water supply emergency plan.

n. Sound practices of excavation, backfill and reseeding shall be followed to minimize erosion and deposition of sediment in streams.

o. No new water service connections shall be made to premises connected to sewerage systems which are not in compliance with all applicable effluent limits contained in State permits and the *Water Quality Regulations* of the Commission.

p. Nothing herein shall be construed to exempt the docket holder from obtaining all necessary permits and/or approvals from other State, Federal or local government agencies having jurisdiction over this project.

q. The docket holder is permitted to provide the water approved in this docket to the areas included in Section A.3. Area Served of this docket. Any expansion beyond those included in Section A.3. Area Served is subject to DRBC review and approval in accordance with Section 3.8 of the *Compact*.

r. A complete application for the renewal of this docket, or a notice of intent to cease the operations (withdrawal, discharge, etc.) approved by this docket by the expiration date, must be submitted to the DRBC at least 12 months prior to the expiration date below (unless permission has been granted by the DRBC for submission at a later date), using the appropriate DRBC application form. In the event that a timely and complete application for renewal has been submitted and the DRBC is unable, through no fault of the docket holder, to reissue the docket before the expiration date below, the terms and conditions of this docket will remain fully effective and enforceable against the docket holder pending the grant or denial of the application for docket approval.

s. The issuance of this docket approval shall not create any private or proprietary rights in the water of the Basin, and the Commission reserves the rights to amend, alter or rescind any actions taken hereunder in order to insure the proper control, use and management of the water resources of the Basin.

t. If the operation of this project significantly affects or interferes with any domestic or other existing wells or surface water supplies, or if the docket holder receives a complaint by any user of wells or surface water supplies within the zone of influence of the withdrawal, the docket holder shall immediately notify the Executive Director of any complaints by users of wells or surface water supplies within the zone of influence of the withdrawal, and unless excused by the Executive Director, shall investigate such complaints. The docket holder should direct phone call notifications of potential well or surface water interference or complaints of interference to the DRBC Project Review Branch at 609-883-9500, extension 216. Oral notification must always be followed up in writing directed to the Executive Director. In addition, the docket holder shall provide written notification to all potentially impacted users of wells or surface water supplies of the docket holder's responsibilities under this condition. Any well or surface water supply which is substantially adversely affected, or rendered dry or otherwise unusable as a result of the docket holder's project withdrawal, shall be repaired, replaced or otherwise mitigated at the expense of the docket holder. A report of investigation and/or mitigation plan prepared by a hydrologist shall be submitted to the Executive Director as soon as practicable. The Executive Director shall make the final determination regarding the validity of such complaints, the scope or sufficiency of such investigations, and the extent of appropriate mitigation measures, if required. The Executive Director may modify or suspend this approval, or require mitigating measures, pending additional review.

u. For the duration of any drought emergency declared by either Delaware or the Commission, water service or use by the docket holder pursuant to this approval shall be subject to the prohibition of those nonessential uses specified by the Governor of Delaware, or DNREC to the extent that they may be applicable, and to any other emergency resolutions or orders adopted hereafter by the Commission.

v. The docket holder and any other person aggrieved by a reviewable action or decision taken by the Executive Director or Commission pursuant to this docket may seek an administrative hearing pursuant to Articles 5 and 6 of the Commission's *Rules of Practice and Procedure*, and after exhausting all administrative remedies may seek judicial review pursuant to Article 6, section 2.6.10 of the *Rules of Practice and Procedure* and section 15.1(p) of the Commission's *Compact*.

BY THE COMMISSION

APPROVAL DATE: September 27, 2006

EXPIRATION DATE: September 27, 2016